hour after meals, and not on an empty stomach. The mercury with chalk acts mildly, but effectually, when well prepared, and is conveniently combined with quinia and put up in capsules. I most frequently, however, employ the blue mass, made into pills of two or three grains each, with the addition of one grain of the dried sulphate of iron; one pill to be given, three or four times a day, an hour after eating. These pills rarely act upon the bowels or require the addition of opium."

Of the three modes for the external use of mercury, Dr. B. prefers inunction. Dr. B. calls especial attention to the dose of iodide of potassium requisite to give this agent its full effect. "Relief will be had and important organs will be saved," he says, "by giving one hundred grains a day, when the disease only laughs (metaphorically speaking) at fifteen or twenty! Patients find this out themselves when you have not stinted them in the use of the remedy; and will tell you, as one of my patients with syphilitic necrosis of the ulna recently did me, that forty grains three times a day had no effect, while fifty three times a day were at once followed by a manifest improvement. The iodide of potassium has been given with impunity in the quantity of two or three ounces in the twenty-four hours for several weeks and even months, but this amount is unnecessarily large. I have never had occasion to exceed three drachms a day; and from a drachm and a half to two drachms is usually sufficient."

He is convinced, however, "by no small experience that the iodide of potassium cannot be relied upon alone for permanent relief in pure cases of tertiary syphilis; and that the judicious use of mercury, especially by inunction, concurrently with the iodide, affords a much greater degree of security. The 'mixed treatment,' administered in the form of large doses of iodide of potassium internally and repeated courses of mercurial inunction externally, has relieved more desperate cases of syphilis than any other mode of practice that I know of. The books tell us that mercury and iodide of potassium should not be used at the same time for fear of severe salivation, through the evolution of the biniodide of mercury in the system. Experience, better than books, teaches us that this fear is groundless."

Sugar Formation in the Liver.—It is well established that the liver in healthy animals, when examined within a few minutes after death, contains an appreciable amount of glucose; that this glucose increases in quantity in the liver-tissue after the circulation has ceased; that it will even reappear in the liver, separated from the body, after having been entirely washed out by a continued watery injection of the hepatic vessels; and that it is produced by a catalytic transformation of the amyloid substance, or glycogene, under the influence of an animal ferment.

Doubts, however, have been raised whether glucose really exists in the liver during life, and consequently whether there is really a glycogenic function, properly speaking. To clear up these doubts, Prof. J. C. DALTON instituted a number of ingeniously devised experiments, from the results of which he draws the following conclusions:—

"1. Sugar exists in the liver at the earliest period at which it is possible to examine the organ after its separation from the body of the living animal.

"2. The average quantity of sugar existing in the liver at this time is at least two and a half parts per thousand.

"3. The liver-sugar thus found does not belong to the arterial blood with which the organ is supplied, but is a normal ingredient of the hepatic tissue."—*New York Medical Journal*, July, 1871.

One of the Causes of Death from Chloroform.—Dr. ANDREW H. SMITH calls attention (*New York Medical Journal*, July, 1871) to *direct local anæsthesia of the lungs* as a mode of death from chloroform, differing from cardiac syncope, and from paralysis of the respiratory muscles. It is well known that the movements of respiration, although to some extent under the influence of the will, are chiefly reflex in their character. "Now," he observes, "every reflex movement requires as its antecedent an impression upon a sensitive nerve. In this case the impression is chiefly upon the pulmonary nerves, and results from an excess of carbonic acid and a deficiency of oxygen in the blood. That the origin of the movements is peripheral and not central is shown by the fact that section of the pneumogastrics greatly reduces the frequency of the respiration, which would not be the case if the unaërated blood acted directly upon the respiratory centres as strychnia does upon the cord."

In a certain proportion of cases Dr. S. believes "that chloroform destroys life by its local anæsthetic effect upon the lung, rendering it insensible to the presence of carbonic acid, and thus removing the stimulus to respiration. The vapour of chloroform is a decided local anæsthetic, especially when applied to a mucous surface. It is well known that the senses of taste and smell are abolished at a very early stage of chloroform narcosis, and this effect is universally attributed to the local action of the chloroform. Dr. Squibb calls attention to this local anæsthetic effect upon the larynx as explaining the fact that the glottis does not close to prevent the passage of anæsthetic vapours as it does in the case of other irritating substances. Precisely this effect, extended to a large portion of the lung, may act, as I conceive, to prevent entirely the impression upon the nerves which is required to excite respiratory movements. * * * It is to be borne in mind that the lungs partake of the general anæsthetic effect of the chloroform to an exceptional extent, as the blood with which they are supplied is charged more highly with the anæsthetic than the blood in other portions of the body. Now, the experiments of M. Caze, of Strasbourg, show that anæsthetics act rather upon the peripheral nerves than upon the nerve-centres. He states that a limb can be protected against the influence of chloroform inhalation by merely compressing the main artery that supplies it. Immediately on removing the pressure and restoring the circulation, the limb becomes insensible.[1] If this be true, the lungs are evidently exposed to a disproportionate action, since their nerves are bathed by blood containing a much larger proportion of the anæsthetic than is contained in the general circulation. If now we add to this the effect which chloroform vapour exerts upon the nerves by its direct local action independently of the circulation, the surprise is that the perfect insensibility is not the rule rather than the exception. * * Death from pulmonary anæsthesia would be more likely to result from a large amount of vapour being inhaled at a single inspiration. This may readily occur when the chloroform is poured upon a towel folded in a number of thicknesses, and already warmed by the breath of the patient and by contact with the face. If the towel is formed into a cone, the cone may well be filled with almost pure chloroform vapour. When this is suddenly applied to the face of the patient, the first inspiration must include an undue proportion of the anæsthetic. Hence, an inhaler like that of Dr. Sayre, in which the chloroform is vapourized by the current of air drawn through it, would afford much greater safety."

Calculi under the Prepuce.—A curious case of this is recorded (*Pacific Medical and Surgical Journal*, September, 1871) by Dr. H. W. Nelson. The subject of it was a Chinaman, æt. about thirty-five, who, when a boy, fell from a height and alighted astride some hard body, cutting and lacerating the end of the prepuce extensively, as shown by the cicatrix. The wound healed, "leaving an opening for the urine to pass, surrounded by dense tissue on the upper surface and close to the corona of the gland. The opening was so small that it was with difficulty that I could introduce the point of the smallest silver probe. The foreskin was elongated to the extent of about four inches, and seemed quite thick. Underneath and throughout the whole length, the frænum was large and thickened, measuring nearly three-fourths of an inch in diameter. He told me that when he urinated, the skin would distend like a bladder to the size of a man's fist, which caused great suffering. He would endeavour to urinate slowly, in order to relieve him of the pain. The stream of urine through the opening in the foreskin was probably the size of a common pin, and ejected perpendicularly. When the bladder was emptied, there remained nearly a gill of urine in the sac, which gradually dribbled away, but not to empty it."

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[1] Stillé, Therapeutics and Materia Medica, vol. ii. p. 111.